

Two Suggestions for Improving the Operation of Excision of the Knee-Joint for Strumous Disease.

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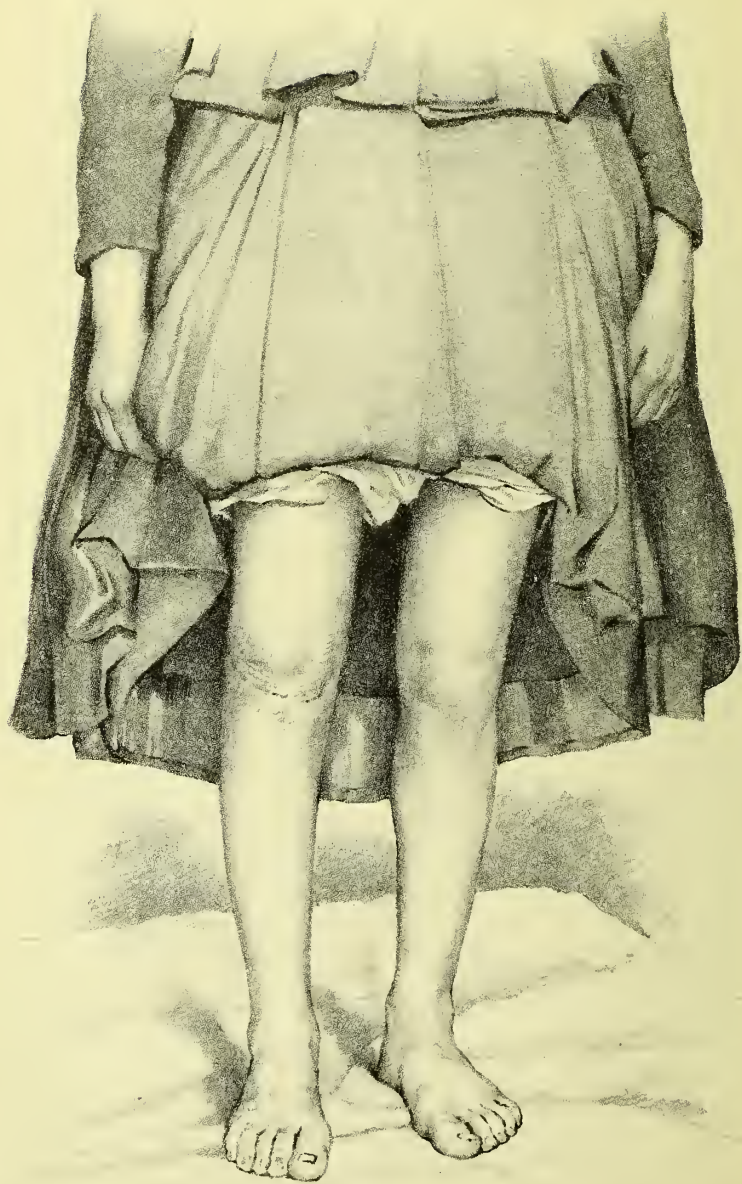
MORE than twenty years ago, when I was house-surgeon to the late Professor James Spence, I learned that to get a satisfactory result in strumous joints it is necessary to remove the whole of the diseased synovial membrane. To carry out this principle, Professor Spence was in the habit, when operating on the elbow, of cutting away as much of the synovial membrane as he could get with scissors. In operating on the knee he adopted a more thorough procedure, which many members of this Society may remember. This was, after reflecting upwards a semilunar flap of skin, to make a circular sweep with his knife round, and at some distance from the patella, and thus remove in one mass that bone and a considerable portion of the thickened and diseased synovial membrane. This procedure strongly recommended itself to me, and I think that I have even improved on it. My method is as follows:—After reflecting a semilunar flap of skin upwards, well above the patella, I cut through the tendon of the extensor of the thigh a little above the patella, and also through the fibres of the vasti, internal and external. In this way the synovial membrane is exposed, and it is then quite easy, cutting in the cellular tissue covering it, to push up the muscular substance, and to draw down the thickened synovial membrane, which comes readily off the

periosteum, and has then to be cut at its attachment round the articular surface of the femur. In this way four-fifths or thereabouts of the synovial membrane is removed in one mass with the patella imbedded in it. Those portions of the membrane that cover the ligaments are then removed by the use of the Lister sharp spoon. The ligaments should be scraped till they appear clean and white. They are then cut through to permit of complete flexion of the joint, and the operation is completed by the removal of a sufficient amount of bone.


The above method of removing the whole of the synovial membrane may be somewhat tedious, but if systematically carried out is very thorough. The procedure is not difficult, but requires care. I have employed it for several years, and in the majority of the eighteen cases given in the following table. Of the minor details of the operation I will mention only two. The ligaments should be scraped clean before they are cut, for obviously the scraping will be easier when they are firm than when they are hanging loose. The other point is that the tendon of the extensor requires to be very carefully cut across, as it lies deeply imbedded in the diseased synovial membrane, and the latter is more easily removed if uninjured. Extensor tendon may be sutured to ligamentum patellæ.

There is another procedure which I would recommend. In the old days, when a house-surgeon, I was much troubled, in dressing knee-excision cases, with the skin which lay in a loose, redundant, and troublesome manner in folds over the approximated bones. To remove this redundant skin I act as follows:—After making an incision from behind the one condyle to behind the other, across the front of the knee and at the level of the top of the tibia, I make another cut, commencing and terminating at the same points, but over the centre of the patella. These two incisions include an elliptical portion of skin, which is left attached, and the skin is dissected up over the synovial membrane from the upper cut as described above.

For this minor procedure I claim two advantages—1. Redundant and unnecessary skin is removed, which makes the limb look neater afterwards. 2. The flap of skin is more easily dissected off







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the synovial membrane since it is about an inch shorter than the ordinary flap made by Watson, whose method of treatment I have adopted with the above modifications.

TABLE OF ALL THE CASES OPERATED ON BY A. G. MILLER.

Name and Age.	Date of Operation.	Date of Discharge.	
1. D. M., m., æt. 23.	Jan. 19, 1885.	May 1, 1885.	102 days.
2. J. B., f., " 25.	Mar. 19, 1886.	May 8, 1886.	50 "
3. J. A. S., f., " 29.	June 7, "	Nov. 18, "	164 "
4. J. S., m., " 17.	June 25, "	Aug. 20, "	56 "
5. J. M., f., " 18.	Aug. 12, "	{ Amputation, Sept. 23; discharged cured, no date.	
6. K. B., f., " 18.	Aug. 16, "		
7. J. B., m., " 23.	Aug. 27, "	Nov. 17, 1886.	93 "
8. M. D., f., " 13.	Mar. 8, 1887.	Nov. 22, "	87 "
		May 18, 1887.	71 "
9. W. C., m., " 20.	Sept. 6, "	{ Amputation, Nov. 10; discharged cured, Dec. 8, 1887.	
10. G. B., m., " 30.	Sept. 28, "		
11. M. F., f., " 22.	Oct. 27, "	Nov. 30, 1887.	63 "
12. J. M., m., " 42.	Feb. 21, 1888.	Jan. 5, 1888.	69 "
13. J. C., f., " 11.	April 20, "	Jan. 17, 1889.	330 "
14. J. M., f., " 12.	June 22, "	May 7, 1888.	17 "
		July 28, "	36 "
15. D. S., m., " 7.	June 26, "	Sept. 1, "	{ 67 days. Arthrectomy.
16. Mrs C., f., " 30.	Dec. 11, "	Feb. 9, 1889.	
17. J. L., m., " 19.	Feb. 19, 1889, }	Amputated May 21, 1889.	60 days.
18. W. B., m., " 19.	Feb. 26, "	April 4, 1889.	37 days.

Average duration of 15 cases in Hospital about 87 days = $12\frac{1}{2}$ weeks.

Of these 18 cases, 15 were successful, 3 suffered amputation after an interval, none died. In 16 cases the excision was performed for strumous disease, in 1 for rheumatic ostitis, and in 1 for dislocation of four years' standing. In the three unsuccessful cases, amputation was recommended at the first.

In case 12, J. M., a second operation (gouging) was required for return of caries in the tibia.

The Plates represent the result in cases 14 and 18, from photographs taken by Mr J. L. Lorimer, medical student.

